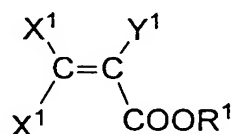


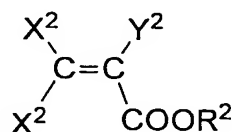
CLAIMS

1. A polymerizable composition comprising a polymerizable monomer composition comprising a compound (A) denoted by Formula (1) shown bellow and a compound (B) denoted by Formula (2) shown bellow:

Formula (1)



Formula (2)



where X^1 and X^2 respectively denote hydrogen (H) or deuterium (D) and two X^1 s and two X^2 s may be identical or different each other; Y^1 and Y^2 respectively denote H, D, CH_3 , CD_3 or fluorine (F); R^1 is a branched C3-8 alkyl group; R^2 is a C1-7 fluoroalkyl group substituted with 1 to 15 fluorine atoms; and the compound (A) to the compound (B) mole ratio is not less than 1/100 and less than 4/1; and

a polymerization initiator capable of initiating polymerization of the polymerizable monomer composition.

2. The composition of claim 1 further comprising a chain transfer agent.

3. The composition of claim 1 or 2 further comprising a refractive index adjuster having a different refractive index from that of the polymerizable monomer composition.

4. A process for preparing an optical member comprising polymerizing a composition of any one of claims 1 to 3 to form

a region having a distributed refractive index.

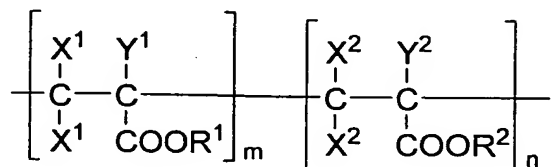
5. The process of claim 4 wherein the polymerization is carried out according to an interfacial-gel polymerization.

6. An optical member prepared by a process of claim 4 or 5.

7. An optical member comprising a core region having a distributed refractive index, which is prepared by polymerization of a composition of any one of claims 1 to 3 and a clad region cladding the core region.

8. An optical member essentially formed of a copolymer denoted by Formula (X):

Formula (X)



where X^1 and X^2 respectively denote hydrogen (H) or deuterium (D) and two X^1 's and two X^2 's may be identical or different each other; Y^1 and Y^2 respectively denote H, D, CH_3 , CD_3 or fluorine (F); R^1 is a branched C3-8 alkyl group; R^2 is a C1-7 fluoroalkyl group substituted with 1 to 15 fluorine atoms; m and n respectively denote a mole ratio of a repeating unit provided that m/n is not less than 1/100 and less than 4/1.

9. The optical member of 8 wherein the copolymer has a weight-average molecular weight within a range from 10,000 to

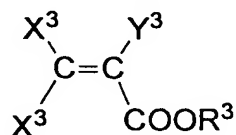
1,000,000.

10. The optical member of claim 8 or 9 comprising a region comprising a matrix formed of the copolymer and a compound contained in the matrix wherein the region has a concentration distribution of the compound, thereby having the distribution in the refractive index.

11. An optical fiber prepared by drawing an optical member of any one of claims 6 to 10.

12. A process for preparing an optical member comprising polymerizing a polymerizable composition comprising a polymerizable monomer composition comprising a compound denoted by Formula (3):

Formula (3)

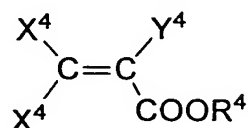


where X^3 denotes hydrogen (H) or deuterium (D) and two X^3 s may be identical or different each other; Y^3 is H, D, CH_3 or CD_3 ; and R^3 is a C7-20 alicyclic hydrocarbon group; a polymerization initiator for initiating the polymerizable monomers composition; and a compound having a different refractive index from that of the polymerizable monomer composition, in a hollow vessel, to form a polymer toward a center from an inner surface of the vessel.

13. The process of claim 12, wherein the polymerizable

monomer composition further comprises a compound denoted by Formula (4):

Formula (4)

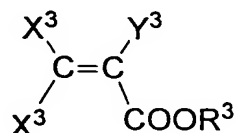


where X^4 is H or D and two X^4 s may be identical or different each other; Y^4 is H, D, CH_3 or CD_3 ; and R^4 is a C1-7 fluoroalkyl group substituted with 1 to 15 fluorine atoms.

14. The process of claim 12 or 13, wherein the polymerization of the polymerizable composition is carried out according to an interfacial-gel polymerization.

15. A process for preparing an optical member comprising polymerizing a polymerizable composition comprising a polymerizable monomer composition comprising a compound denoted by Formula (3):

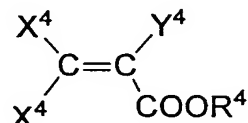
Formula (3)



where X^3 denotes hydrogen (H) or deuterium (D) and two X^3 s may be identical or different each other; Y^3 is H, D, CH_3 or CD_3 ; and R^3 is a C7-20 alicyclic hydrocarbon group; a polymerization initiator for initiating the polymerizable monomer composition; and a compound having a different refractive index from that of the polymerizable monomer composition, to form a region having a distributed refractive index.

16. The process of claim 15, wherein the polymerizable monomer composition further comprises a compound denoted by Formula (4):

Formula (4)

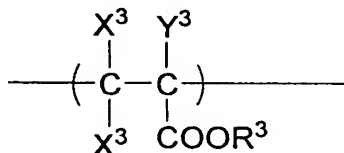


where X^4 is H or D and two X^4 s may be identical or different each other; Y^4 is H, D, CH_3 or CD_3 ; and R^4 is a C1-7 fluoroalkyl group substituted with 1 to 15 fluorine atoms.

17. An optical member prepared by a process any one of claims 12 to 16.

18. An optical member comprising a region having a distributed refractive index which is essentially formed of a polymer having a molecular weight from 10,000 to 1,000,000 and comprising a repeating unit denoted by Formula (X-1):

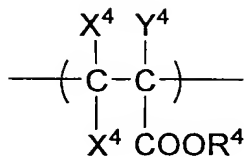
Formula (X-1)



where X^3 denotes hydrogen (H) or deuterium (D) and two X^3 s may be identical or different each other; Y^3 is H, D, CH_3 or CD_3 ; and R^3 is a C7-20 alicyclic hydrocarbon group.

19. The optical member of claim 18 wherein the polymer further comprises a repeating unit denoted by Formula (X-2):

Formula (X-2)



where X^4 is H or D and two X^4 s may be identical or different each other; Y^4 is H, D, CH_3 or CD_3 ; and R^4 is a C1-7 fluoroalkyl group substituted with 1 to 15 fluorine atoms.

20. The optical member of claim 18 or 19 comprising a region comprising a matrix formed of the polymer and a compound contained in the matrix wherein the region has a concentration distribution of the compound, thereby having the distribution in the refractive index.

21. An optical fiber prepared by drawing an optical member of any one of claims 17 to 20.